

# The Death Spiral: Supporting 'On Grid' Consumers Workshop

November 2014  
Post-workshop report



**SACOSS**

*South Australian Council  
of Social Service*

## Contents

<b>Message from Ross Womersley</b>	<b>3</b>
<b>Background</b>	<b>4</b>
<b>The Death Spiral: Supporting 'On Grid' Consumers Workshop</b>	<b>7</b>
<b>Policy Initiatives</b>	<b>8</b>
<b>Delegates</b>	<b>10</b>
<b>About SACOSS</b>	<b>11</b>

First published in April 2015 by the  
South Australian Council of Social Service

47 King William Road  
Unley, SA 5061 Australia

**p** (08) 8305 4222

**f** (08) 8272 9500

**e** [sacoss@sacoss.org.au](mailto:sacoss@sacoss.org.au)

**[www.sacoss.org.au](http://www.sacoss.org.au)**

© South Australian Council of Social Service, 2015

This publication is copyright. Apart from fair dealing for the purpose of private study, research, criticism or review, as permitted under the Copyright Act, no part may be reproduced by any process without written permission. Enquiries should be addressed to the Communications Officer, South Australian Council of Social Service.



# Message from Ross Womersley

---

At the outset I again want to thank all the participants on behalf of SACOSS for the work they put in at the Workshop itself, and in preparation for the Workshop. I know many participants had consulted with their organisations and given great thought to the key initiatives that were put forward. We thank you for this valuable work.

The Workshop was an extremely significant gathering of senior stakeholders from around Australia and the first attempt by SACOSS to seek broad assistance in developing a policy framework for addressing the death spiral scenario. The fact that these participants gave up their time for this purpose, and their willingness to share ideas and explore points of difference, is testament to the priority that all participants place on the issues.

We were pleased that in the end, a consensus emerged for 6 initiatives. Given the broad range of participants from industry, government and the consumer sector, it was very welcome to see that agreement could be reached on core policy priorities.

Of course some of the proposals require much more work before they can be considered detailed policy initiatives. However, the framework provides a good foundation for further research and development of ideas about what is going to be useful to address the scenario of the death spiral occurring.

Another major theme for the day is that these supported policy initiatives cannot be considered in isolation. Many of the initiatives are complementary to others, and they should therefore be viewed as a package of necessary reforms.

In terms of the initiatives for which there was no consensus, it is apparent that there are some major areas of disagreement. SACOSS would expect therefore, that some of these initiatives will continue to be explored by some organisations, and also that this will be in a research and development context as well as a broader advocacy framework. With this in mind, it is therefore extremely useful to have the range of responses documented. They provide good perspective on what some of the key areas of debate are, as well as some of the reasons behind the disagreements.

Another theme that emerged across the day was that while a number of ideas fit well in a death spiral context, they also have benefits in a number of other arenas. For example, the proposed concession review is likely to have a major impact on affordability issues and the initiative around distributed technologies is likely to aid the development of new and emerging technologies.

My final observation about the day is that stakeholders from across government, industry and the consumer sector recognise the need to prioritise policy development around vulnerable consumers in a death spiral context. This is a major theme and its value is not to be underestimated. SACOSS is hopeful that with such broad support, policy development on this crucial area will continue to progress rapidly.

There is a lot more work to be done to make some of the ideas into a reality, but we think the Workshop has been a great step along the way to ensuring that all Australians have access to essential energy services at reasonable prices.

Yours with thanks,  
Ross Womersley  
Executive Director

# Background

## What is the death spiral?

The 'death spiral' is the attention grabbing term being used to describe a possible future for today's electricity systems. Australians were introduced to the concept by AGL's Simshauser and Nelson in a 2012 Working Paper<sup>1</sup>. The authors credited the application of the term to electric utilities by US author Craig Severance<sup>2</sup> (2011):

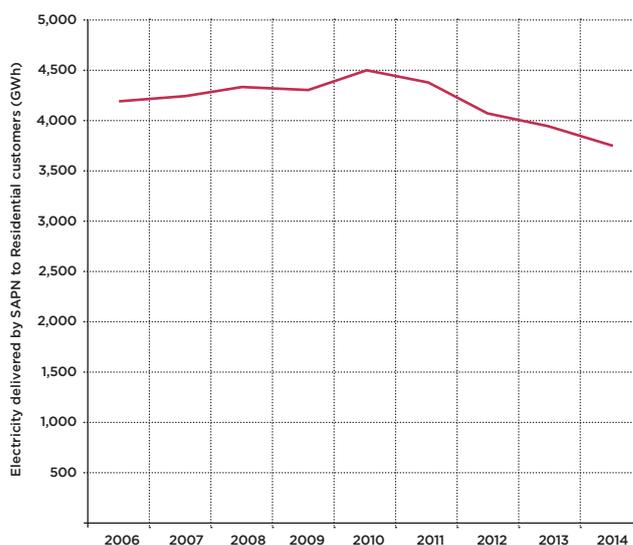
*"The unspoken fear of all utility managers is the "Death Spiral Scenario". In this nightmare, a utility commits to build new equipment. However, when electric rates are raised to pay for the new plant, the rate shock moves customers to cut their kWh use. The utility then has no way to pay for the new power plant unless it raises rates even higher - causing a further spiral as customers cut their use even more or walk away.*

*In the final stages of that death spiral, the more affluent customers drastically cut purchases by implementing efficiency and on-site power, but the poorest customers have been unable to finance such measures. The utility is then left attempting to collect higher and higher rates from poorer and poorer customers (p13)."*

Severance's description can be readily applied to the Australian context and highlights the key area of concern for SACOSS: the exacerbation of hardship.

## What evidence is there that the death spiral is occurring?

While, for example, around 1 in 4 households connected to the South Australian electricity grid already have solar and the volume of electricity drawn from the grid has been declining for a number of years, it is far too early to be declaring that a 'Death Spiral' has begun. However, there are definitely trends consistent with what one might look like. For example, data from SA Power Networks (SAPN) shows a clear decline in residential consumption from the grid after 2010 - falling some 20% from its peak by 2014 as illustrated in Figure 1 below.



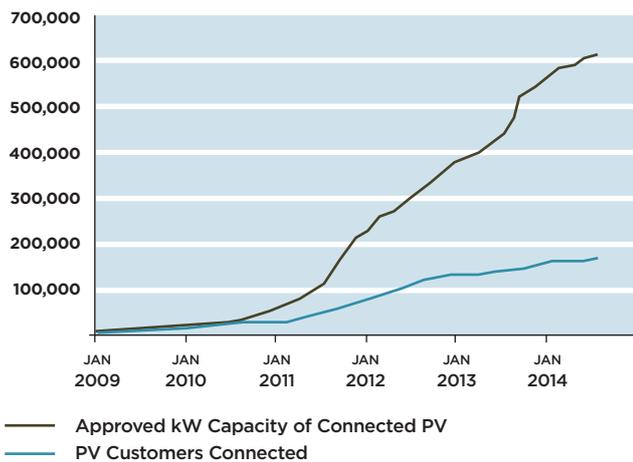
**Figure 1:** Electricity volumes delivered by SA Power Networks to Residential customers 2006-14 (Source: SAPN RIN data published by the Australian Energy Regulator)

<sup>1</sup> Simshauser, P. and Nelson, T. (2012) The Energy Market Death Spiral - Rethinking Customer Hardship at <http://agblog.com.au/wp-content/uploads/2012/07/No-31-Death-Spiral1.pdf>

<sup>2</sup> Severance, C. 2011, "A practical, affordable (and least business risk) plan to achieve 80% clean electricity by 2035", The Electricity Journal, 24(6): 8-26.

Figure 2, below, is taken from SAPN's 2015-20 Regulatory Proposal and shows the dramatic increase in Solar PV systems connected to the grid from around the same time (approx. 2010).

**Figure 5.3:** No. Solar PV connections to SA Power Networks' distribution network. PV Customers and PV Capacity kW Approved.



SOURCE: SA POWER NETWORKS ANALYSIS 2014

**Figure 2:** Solar PV connections to SA Power Networks electricity grid  
Source: SAPN<sup>3</sup>

## What measures have been taken to prevent the death spiral from occurring?

The two key measures that have so far been put in place in response are:

- Change the 'form of regulation' from price caps to revenue caps – meaning that the regulated businesses will have much more certainty over recovering revenue, even if sales volumes continue to decline.
- Reform pricing so that prices are more reflective of costs. Price reform will be driven from a recent change to the National Electricity Rules<sup>4</sup>. Network prices based on the new pricing objective and pricing principles will be gradually phased in from 2017.

Both measures specifically seek to protect regulated revenue and this has important implications for consumers.

There is evidence that businesses are asking for an increased rate of return to compensate for the risks of a Death Spiral occurring. For example, SA Power Networks has stated:

*“Meanwhile, we are confronted with new and significantly increased risks that throw into question whether investors should be willing to invest in electricity network businesses. As explained below, new “disruptive technologies” raise fundamental questions about what the network will look like in the future and whether it will be possible to obtain an adequate return on investments. Now is not the time to be reducing risk adjusted returns because there is a real risk that if the return on equity is substantially reduced, insufficient investment incentives will exist affecting the level of financial resilience and service that customers expect from their electricity distributor.”<sup>5</sup>*

*“... the risk of electricity network businesses has changed dramatically in the very recent past... Essentially our business is confronted with two possible future scenarios, one in which we evolve and survive and the other in which our network progressively becomes redundant.”<sup>6</sup>*

The SAPN Regulatory Proposal then goes on to discuss three disruptive technologies: rooftop solar, electricity storage and “smart” technologies. The proposal states that:

*“... when these three factors combine it calls into question whether customer disconnections from the grid might be significant enough to put at risk the viability of the whole regulated price recovery system.”<sup>7</sup>*

And;

*“The risk that now looms within the relevant 50 year investment horizon is that a significant number of customers may disconnect from the grid and instead install solar panels or other distributed generation combined with battery storage – either on an individual basis or in clusters linked to new micro-grids.”*

<sup>3</sup> SA Power Networks (2014) Regulatory Proposal 2015-20 at <http://www.aer.gov.au/node/20941> p. 54

<sup>4</sup> AEMC Rule Change ERC0161 [www.aemc.gov.au/Rule-Changes/Distribution-Network-Pricing-Arrangements](http://www.aemc.gov.au/Rule-Changes/Distribution-Network-Pricing-Arrangements)

<sup>5</sup> SAPN Regulatory Proposal 2015-20 Section 26 “Weighted average cost of capital” p. 303

<sup>6</sup> SAPN (2014) p. 306

<sup>7</sup> SAPN (2014) p. 307

*“Electricity industry commentators often refer to a ‘tipping point’ or ‘point of inflection’ where the regulated pricing system becomes unsustainable and an endless spiral of disconnections commences. If a significant number of customers find distributed generation and storage more cost effective than staying connected, the prices for those who remain connected would rise to recover the costs of the infrastructure no longer used for the customers who had disconnected. As the prices are raised, it creates the incentive for another group of customers to disconnect and so on until there is not a sufficient customer base to be able to cover the costs of the whole system.”<sup>8</sup>*

So, in an example of the mechanics of the ‘death spiral’ in action, SAPN would respond to consumers leaving the grid by increasing their prices – something that is likely to only motivate more consumers to do the same.

SACOSS recently convened an industry workshop “The Death Spiral: Supporting ‘On Grid’ Consumers” in order to facilitate some constructive dialogue on this critical issue for the energy market and for consumers. It became clear that there was likely to be significant losses incurred by either investors or consumers or both and, of course, the commercial incentive is to shift these losses on to consumers.

A recent article in The Australian<sup>9</sup> used SAPN owner Spark Infrastructure’s climbing share price as evidence that:

*“Investors aren’t buying claims of a death spiral in the electricity distribution business ... The climbing share prices highlight expectations that the distributors will find a way to overcome expectations that distribution charges should be falling in light of reduced demand.”*

Further;

*“The decline of energy-intensive manufacturing and the rise of DIY energy production via rooftop solar panels are the bigger themes overlaying the decline in electricity consumption, with the latest results also hit by a warmer winter.”*

*“The fear for distributors is that they exacerbate the loss of custom by pushing up prices to cover the high fixed cost of the grid and drive even more customers to use alternative energy sources.”*

*“Regulators and management say the “death spiral” thesis is overblown because the trend of falling consumption, while well-established, is a relatively small amount each year that gives the system time to adjust.”*

In relation to the move to revenue caps:

*“As analysts at JP Morgan said in a note to clients yesterday, the new model cannot come soon enough. “Given the slide in demand registered in the half, we feel a sense of relief that revenue cap tariffs are just around the corner for both the VIC and SA businesses.”*

*“While the next reset will be conducted under the new (and more stringent) regulatory rules, expected returns will no longer be dictated by volume performance compared to regulatory forecasts.”*

So, in summary, there has been a regulatory and commercial response from the electricity market that seeks to diminish some of the risks associated with the Death Spiral concept. However, the trends remain and it is unclear if the advance of the technologies and business models that make it easier to ‘walk away’ from the grid will deliver a similar result over time anyway.

## **What are the problems associated with a death spiral?**

Ultimately, the Death Spiral can exacerbate the distributional impacts of electricity policy. If the winners are those who leave the grid and the losers are those left behind then a defining attribute will be access to capital. As has been the case with solar to date, options for renters are likely to be particularly limited.

<sup>8</sup> SAPN (2014) p. 308

<sup>9</sup> Andrew White, The Australian August 27th 2014 “Investors pull plug on talk of ‘death spiral’ in electricity distribution” <http://www.theaustralian.com.au/business/mining-energy/investors-pull-plug-on-talk-of-death-spiral-in-electricity-distribution/story-e6frg9df-1227037930026>



# The Death Spiral: Supporting 'On Grid' Consumers Workshop

The SACOSS Death Spiral; Supporting 'On Grid' Consumers brought together 30 senior energy market participants from industry, government and the community sector to attempt to reach agreement on a number of key policy initiatives to address the need for 'on grid' consumer support in a death spiral scenario.

The opening session saw speeches from:

- Richard Denniss (The Australia Institute)
- Tony Wood (Grattan Institute)
- Bruce Mountain (Carbon and Energy Markets)

The speakers outlined some key concerns about a death spiral scenario and some possible policy responses. Richard Denniss discussed an emerging distribution model and the potential position of consumers in paying for existing infrastructure. Tony Wood discussed what has been happening with energy prices and affordability which led to recommendations to address overinvestment and make prices more cost reflective.

Bruce Mountain presented an overview of electricity prices, PV installations and the challenges presented by new and emerging technologies.

The rest of the day was spent in facilitated parallel workshops which explored the death spiral scenario. Each participant was offered the opportunity to put forward one key policy initiative that would make a substantial contribution to supporting on grid consumers in a death spiral scenario.

This report records the initiatives proposed by the workshop attendees and notes the key themes that emerged from discussion, as well as identifying those ideas that gained consensus from all the stakeholders. Where agreement on an initiative was not reached, the reasons for rejecting the initiative have also been described.

# Policy Initiatives

---

## Record of initiatives put forward by delegates for discussion

### Supported initiatives

**1.** Support reforms that move towards cost-reflective pricing to allow electricity consumers and suppliers to make more informed decisions, supported by customer education to manage the issues/concerns:

- Peak demand pricing
- Metering
- PV customers' actual costs charged
- Retailer-customer interface

**2.** Concession review to complement point 1 above:

- Include on and off grid customers
- Government to consider either a capacity or energy charge rebate for financially vulnerable customers where a demand tariff exists

**3.** Consumer protection review

**4.** Stranded assets/impairment:

- Review the regulatory treatment required
- Prioritise flexible network pricing

**5.** Gas death spiral:

- assess the extent of the issue

**6.** Networks to develop pricing structures that provide distributed generation and other smart grid technologies clarity of cost before they make their investment decisions

The following policy initiatives were discussed but no consensus was reached for the stated reasons:

**1.** Reducing grid dependence for low income households:

- This initiative was explored in two of the three parallel workshops and was supported by the majority of participants
- A concern was raised that the objective should not be to reduce grid dependence but to provide all consumers with cost effective electricity

**2.** Lobby to change the way SAPN applies the PV FiT to residential customers, so it is applied as an addition to the supply charge rather than as an energy charge:

- This initiative was broadly agreed as having a negative impact on low income consumers

**3.** Require energy network businesses to analyse their competitive position against emerging alternative energy sources and forecast disconnection of existing customers from their networks:

- This initiative received limited support in one of the three parallel workshops
- It was argued that industry already does this, that there is too much complexity for the AER and AEMC to undertake this task as it would be too burdensome, and that the market should be allowed to decide

**4.** Co-funding models across industry and government to support services for vulnerable customers:

- This received varying support and some opposition
- It was argued that co-funding is inefficient, not an industry role and one which creates a cross subsidy

**5.** Mandate shift from a 'volume' to 'cost' reflective electricity tariff structure whereby even if consumers leave the grid entirely, they will still be liable for a standby connection fee:

- This initiative was explored in one of the parallel workshops and it was rejected by the overwhelming majority
- It was thought that this was an unreasonable expectation, not politically palatable and did not reflect the element of choice inherent in electricity

**6.** PV systems on type 6 meters have separate load profile:

- This initiative was discussed in one parallel workshop and received mixed support
- It was considered a second order priority

**7.** Find out the extent to which there are barriers to adoption of application of PV and emerging technologies to low income households and other consumers unable to access emerging technologies:

- This was discussed in one of the parallel workshops where it had overwhelming support except for one participant
- A concern was raised that the aim is not to get PV to households but to get good outcomes for low income households. It was stated that there was a value in remaining connected to the grid.

**8.** Investigate the implications of Ausgrid's TOU tariff and SAPN's monthly demand tariff:

- This was discussed in one of the parallel workshops where there was agreement, although there was some debate about whether to investigate both tariffs, or only Ausgrid's specified tariff.

# Delegates

---

**James Bennett**, SA Power Networks

**Bronwyn Colby**, SACOSS

**Jo De Silva**, SACOSS

**Richard Denniss**, The Australia Institute

**Vince Duffy**, DSD

**Gavin Dufty**, St Vincent de Paul

**Susan Faulbaum**, AER

**Adrian Ferraretto**, Tindo Solar

**Alex Fraser**, ERAA

**Aneta Graham**, Lumo Energy

**Mark Henley**, Uniting Communities

**Sean Kelly**, SA Power Networks

**Rebecca Knights**, DSD

**Rainer Korte**, ElectraNet

**Joe Kremzer**, Energy Australia

**Andrea Linsenmeier**, Origin Energy

**Wayne Lissner**, SA Power Networks

**Andrew McKenna**, Business SA

**Craig Memery**, ATA

**Bruce Mountain**, Carbon and Energy Markets

**Andrew Nance**, St Kitts Associates

**Tim Nelson**, AGL

**Richard Owens**, AEMC

**Lew Owens**

**Adam Petersen**, AER

**Shaun Ruddy**, Alinta Energy

**David Swift**, AEMO

**Craig Wilkins**, Conservation Council of SA

**Adam Wilson**, ESCOSA

**Ross Womersley**, SACOSS

**Tony Wood**, Grattan Institute

# About SACOSS

---

As the peak non-government representative body for community services in South Australia, the South Australian Council of Social Service has a vision of justice, opportunity and shared wealth for all South Australians.

SACOSS has a strong membership base from a broad cross-section of the social services arena. Members of our organisation span both small and large agencies, peak bodies, service providers, individuals, and some government departments.

SACOSS offers a strong voice for the sector and for vulnerable and disadvantaged South Australians. We play an important integrative function by undertaking key peak roles which include:

- Research, policy development, advice to government and the sector
- Advocacy and representation to government and other decision makers
- Information dissemination within the sector and to the community
- Sector consultation and coordination within the sector
- Sector capacity building to enable better service delivery and functioning of community organisations.

As South Australia's peak body for the social services sector, SACOSS draws strength from an active and cohesive membership of like-focussed people.

SACOSS is also part of a national network, consisting of the Australian Council of Social Service (ACOSS) and the other state and territory Councils of Social Service, which advocate for low income and disadvantaged people Australia-wide.

**South Australian Council of Social Service**

Marjorie Black House  
47 King William Road  
Unley, SA 5061 Australia

t (08) 8305 4222

f (08) 8272 9500

e [sacoss@sacoss.org.au](mailto:sacoss@sacoss.org.au)

 [facebook.com/SACOSS](https://facebook.com/SACOSS)

 [@SACOSS](https://twitter.com/SACOSS)

[www.sacoss.org.au](http://www.sacoss.org.au)



**SACOSS**

*South Australian Council  
of Social Service*